

WHAT IS CLAIMED IS:

1. A method, comprising:
receiving a service request for adding, modifying or canceling a packet transport service having defined service levels of one or more packet networks; and
automatically generating configuration data for one or more of a plurality of network elements of said one or more packet networks necessary for implementing the service request.
2. The method of claim 1, further comprising automatically determining which of the plurality of network elements will be affected by the service request.
3. The method of claim 1, wherein automatically generating configuration data includes generating confirmation data based at least in part on data from a network database storing current configuration data for said one or more network elements.
4. The method of claim 1, wherein automatically generating configuration data further comprises automatically generating said configuration data based at least in part on a predefined script.
5. The method of claim 1 wherein generating configuration data includes populating predefined templates with data from a network database storing configuration data on the one or more network elements and new configuration data based on the service request.
6. The method of claim 5, further comprising running one or more automated routines for automatically populating the templates with data from the network database and the new data.
7. The method of claim 1, further comprising verifying that said configuration data is consistent with a configuration of said one or more packet networks.

8. The method of claim 1, further comprising updating a network database, storing configuration data for said one or more network elements with said generated configuration data.

9. The method of claim 1, further comprising automatically updating a configuration of said one or more network elements based with generated configuration data.

10. The method of claim 9, further comprising verifying that said updated configuration of said one or more network elements is consistent with configuration data, for said one or more network elements, stored in a network database.

11. The method of claim 10, wherein said verifying step comprises:
retrieving said configuration data regarding said one or more network elements from said network database;
identifying one or more fields in said updated configuration of said one or more network elements; and
comparing values of said one or more identified fields with values of corresponding fields in said retrieved configuration data.

12. The method of claim 11, further comprising generating an exception in response to said values of said one or more identified fields not matching said values of corresponding fields in said retrieved configuration data.

13. A method for generating a network element specific configuration, comprising:
receiving a request for adding, modifying or canceling a service on one or more pocket
networks;

updating, upon receiving said request, one or more corresponding objects for said service
in a network database comprising of network element inventory data for a plurality of network
elements of said one or more packet networks;

determining which ones of said plurality of network elements are affected by said
request; and

automatically generating configuration data, for each of said one or more affected
network elements, from at least said network element inventory data and one or more of a
plurality of template fragments comprising predefined configuration text.

14. The method of claim 13, further comprising retrieving one or more selected script
objects from a plurality of script objects, each of said selected script objects specifying a network
element specific script for a corresponding one of said one or more affected network elements.

15. The method of claim 14, further comprising obtaining abstract connectivity
information for each of said one or more affected network elements from said network database.

16. The method of claim 15, wherein said abstract connectivity information specifies
a manner of connection between said one or more affected network elements.

17. The method of claim 16, wherein said automatically generating configuration data
further comprises:

selecting said one or more of said plurality of template fragments; and
assembling said selected template fragments into a template.

18. The method of claim 17, further comprising populating said assembled template
with said network element inventory data.

19. The method of claim 13, further comprising communicating said configuration data to each of said one or more affected network elements.

20. The method of claim 19, wherein said automatically generating step is performed prior to said communicating step.

21. Computer readable media storing instructions that when read a computer enable the computer to undertake a method comprising:

receiving a service request for adding, modifying or canceling a packet transport service having defined service levels of one or more packet networks; and

automatically generating configuration data for one or more of a plurality of network elements of said one or more packet networks necessary for implementing the service request.

22. The computer readable media of claim 21, wherein the method further comprises automatically determining which of the plurality of network elements will be affected by the service request.

23. The computer readable media of claim 21, wherein automatically generating configuration data includes generating confirmation data based at least in part on data from a network database storing current configuration data for said one or more network elements.

24. The computer readable media of claim 21, wherein automatically generating configuration data further comprises automatically generating said configuration data based at least in part on a predefined script.

25. The computer readable media of claim 21, wherein generating configuration data includes populating predefined templates with data from a network database storing configuration data on the one or more network elements and new configuration data based on the service request.

26. The computer readable media of claim 25, wherein the method further comprises comprising running one or more automated routines for automatically populating the templates with data from the network database and the new data.

27. A computer readable storage medium comprising:
stored metadata for describing elements of a packet network, relationships between the
elements of the packet network, and types of properties to be stored with respect to each element
of the packet network; and
fields defined by the metadata for storing configuration data.